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Mineral Resources

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MINERAL RESOURCES

by

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This Article surveys the significant developments of the past year in the Texas law concerning the exploration for and development of mineral resources.[1] Mineral resources, for the purposes of the Article, include deposits of hydrocarbons, like oil and gas, and hard minerals.

The scope of this Article is limited to decisions by Texas and federal courts, enactments of the Texas Legislature, and rules and regulations promulgated by Texas administrative agencies. This Article includes no coverage of the federal regulation, international developments or taxation of mineral resources.

This Article is divided into three sections. The first part of the Article discusses the recent developments in the case law of mineral resources. The second part focuses on the principal pieces of legislation pertaining to mineral resources that were enacted into law during the survey period. The final section summarizes recent administrative developments.

I. CASE LAW

The most significant cases decided in Texas courts during the past year concern the mineral lease and its clauses. The first subdivision examines the effect of a continuous operations clause on the term of the leasehold estate. The second subdivision highlights the continuing development of the *Vela*[2] line of cases regarding royalties expressed as a percentage of the fair market value of lease production. The third subdivision deals with two issues relating to implied covenants: (1) the characterization of a mineral lease's implied covenants in the terms of conventional contract law, and (2) a modification to the customary threshold requirement for requiring a lessee reasonably to develop the leasehold premises.

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1. The law of mineral resources has historically focused on the exploration for and production of minerals and hydrocarbons. The traditional limits of the law of mineral resources have therefore not included within their scope the transportation, processing, and marketing of minerals and hydrocarbons. Nor have these traditional limits included the organizing and financing of the enterprises conducting these activities. This Article preserves the traditional focus on the activities of exploration and production. The reader interested in a complete survey of current developments in the law governing all aspects of the exploitation of mineral resources in our society will wish to supplement his reading with treatments of current developments in public utilities law, environmental law, commercial law, and the law of business associations.

2. Texas Oil & Gas Corp. v. Vela, 429 S.W.2d 866 (Tex. 1968).

A. The Habendum Clause

The habendum clause of a mineral lease conveys the mineral estate to the lessee, specifying the period during which the lessee may enjoy the benefits of the mineral estate before the estate reverts to the lessor.[3] This clause usually expresses the term of the lease by a formula. The lessee typically holds the mineral estate for a primary term of a stated number of years, and then for a secondary term remaining in effect as long as mineral production continues from lands covered by the lease.[4] The essential point about a typical habendum clause is that the term of the lessee's enjoyment of the mineral estate is ultimately measured by the continuous production of minerals under the leasehold. Without production, the lease will automatically terminate under the habendum clause.

The courts of Texas, however, created the doctrine of a temporary cessation of production as an exception to this absolute rule of automatic termination.[5] The doctrine provides that a mere temporary stoppage of production due to mechanical failure or other justifiable circumstances does not terminate a lease that already is in its secondary term.[6] The exception is needed to prevent unjustified litigation by lessors who hope to remove a pioneering wildcat operator after the discovery of valuable minerals from their now proven mineral acreage in order to relet the acreage to substitute operators under more favorable terms. The judicially created exception permits interruptions in production to last up to three or four months, depending on the particular facts and circumstances.[7]

Wholly apart from this judicial exception, however, lessees may seek contractual protection by asking their lessors to include drilling operations clauses in their oil and gas leases.[8] A drilling operations clause holds the lease in force for the benefit of the lessee for a certain designated period, usually sixty days, even though the lessee has failed to obtain production by the end of the primary term. The customary drilling operations clause may be invoked by the lessee only if he is actually engaged in drilling operations at the conclusion of the primary term.[9] Even when properly

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3. For a general introduction to the habendum clause of an oil and gas lease and for a selection of examples, see 2 E. KUNTZ, THE LAW OF OIL & GAS § 26 (1964); 2 W. SUMMERS, THE LAW OF OIL & GAS §§ 281-307 (1959); 3 H. WILLIAMS & C. MEYERS, OIL & GAS LAW §§ 603-604 (1981).

4. A typical habendum clause might read: Lessee shall have and hold the leased premises for a period of ten years, known hereafter as the primary term, and so long thereafter as production from the leased premises continues, known hereafter as the secondary term.

5. *See* Midwest Oil Corp. v. Winsauer, 159 Tex. 560, 323 S.W.2d 944 (1955).

6. Samano v. Sun Oil Co., 621 S.W.2d 580, 581 (Tex. 1981) (citing Watson v. Rochmill, 137 Tex. 565, 155 S.W.2d 783 (1941)).

7. 621 S.W.2d at 587-88 (permitting a cessation of 73 days); 323 S.W.2d at 946 (permitting a cessation of 174 days). *See* Smith, *The Implied Duty to Explore Further: Recent Texas Developments—A Disagreement*, 42 TEXAS L. REV. 199 (1963); Note, *Oil and Gas—Lease—Paying Quantities Under Habendum Clause*, 14 SW. L.J. 539 (1960).

8. For a general introduction to drilling operations clauses, see 3 E. KUNTZ, *supra* note 3, §§ 27-37 (1967); 2 W. SUMMERS, *supra* note 3, §§ 331-370; 3 H. WILLIAMS & C. MEYERS, *supra* note 3, §§ 605-611.

9. 3 H. WILLIAMS & C. MEYERS, *supra* note 3, §§ 605-607.8.

invoked, the usual drilling operations clause preserves the lease only until the operator completes the well that was in progress at the end of the primary term within the specified time period, and the clause continues the lease beyond that time only if the well is a producing one.[10]

A variation on the drilling operations clause is the continuous operations clause.[11] This variant allows the lessee to continue its drilling operations beyond the completion of the one well in progress at the end of the primary term. So long as the lessee continues drilling operations, regardless of how many wells it may drill, and regardless of how many of those wells are dry, the lease remains in force for the benefit of the lessee.[12] Both the drilling operations clause and the continuous operations clause frequently are also written to permit the lessee to interrupt its drilling operations temporarily without losing the lease holding advantages of the clause. Thus, both the judicially created doctrine of temporary cessation and the contractual drilling operations provisions are concerned with breaks in the steady stream of mineral extraction: an interruption in production under the temporary cessation doctrine, and an interruption in drilling under a drilling operations clause.

A second variation of the drilling operations clause blurs these distinctions between the doctrine of cessation in production and the drilling operations clause.[13] The variation consists of a continuous operations clause that expressly has been made applicable to the secondary term of the lease. Under such a clause, if production from the lease ceases, the lessee-operator still holds the lease so long as he continuously conducts drilling operations that ultimately result in a restoration of production from the lease. Rather than excusing a delay in the commencement of production, a continuous operations clause applicable to a lease's secondary term excuses a temporary cessation of production so long as drilling operations occupy the breach in production. This contractual provision therefore serves a purpose similar to that served by the temporary cessation doctrine since both may hold a lease in force during an interruption in production during the secondary term of the lease. Under this preliminary analysis, a key difference between the secondary term clause and the temporary cessation doctrine is the clause's typical requirement that the void in production be filled with productive drilling operations. The drilling operations clause and its variants, however, usually specify a limited time period during which drilling operations may be interrupted, without losing for the lessee the lease holding benefits of the clause. Thus a plausible interpretation of a lease containing a secondary term continuous operations clause and subject to the cessation of production doctrine would be that two periods of interruption in the production from the lease are possible without causing

10. *Id.*

11. Continuous operations are discussed in 4 E. KUNTZ, *supra* note 3, § 47 (1972); 3 H. WILLIAMS & C. MEYERS, *supra* note 3, § 617.

12. 3 H. WILLIAMS & C. MEYERS, *supra* note 3, § 617.

13. For discussions of continuous operations clauses applicable to the secondary term of an oil and gas lease, see 4 E. KUNTZ, *supra* note 3, § 47.4 (1972).

the lease to terminate. According to this interpretation, production might be interrupted temporarily for a judicially determined "reasonable" length of time, while production might be interrupted for some other length of time so long as drilling operations were conducted during the interruption and those drilling operations were not discontinued for a period longer than the contractually agreed upon benign period.

This interpretation, however, is not entirely accurate, because of judicial elaboration on the relationship between a drilling operations clause and the doctrine of cessation of production. Judicial elaboration recognizes that the "reasonable" interval for a benign cessation of production under the doctrine, rather than being determined for the parties to the lease by a court, shall be interpreted always to be equal in length to the period contractually permitted for a temporary stoppage in operations under the drilling operations clause if such a clause has been included in the lease.[14] In essence, a single period of time is provided for an interruption of either production or drilling operations in leases containing a drilling operations clause. Thus, by including a drilling operations clause, the parties to a lease can contractually modify the judicial cessation of production doctrine, and remove from the court the decision as to what should constitute a reasonable interruption, replacing the decision with an objective limitation of their own regarding what should constitute a merely temporary cessation in production. The presence of a continuous operations clause has usually worked to the detriment of the lessee since the interval of permissable interruption as stipulated in this type of clause is usually less generous than the interruption in production permitted by courts under the cessation of production doctrine.[15]

The conventional setting for litigation over continuous operations clauses and habendum clauses arises when the lessor alleges that production from the lease has ceased for a period longer than that contractually stipulated, that the lease thereby has terminated automatically by its own terms, and that the mineral estate has reverted to the lessor.[16] In defense, the lessee may argue that the continuous operations clause is applicable only at the conclusion of the primary term, and not during the secondary term of the lease. Since the period of acceptable delay in drilling operations thus has no bearing on determining the length of an excused interruption of secondary term production, the lessee would argue he is entitled to have the traditional doctrine of cessation of production applied, without consideration of the time limits specified in the lease. In his pleadings the lessee would state that the cessation in production was merely temporary, and that the lease is still in effect with the benefits of the mineral estate continuing to accrue to the lessee.

This controversy was faced by the Texas Supreme Court in *Samano v.*

14. 4 E. KUNTZ, *supra* note 3, § 47.3(a)(1); 3 H. WILLIAMS & C. MEYERS, *supra* note 3, § 616.2.

15. Samano v. Sun Oil Co., 621 S.W.2d 580, 584 (Tex. 1981).

16. *Id.*

Sun Oil Co.[17] The critical issue in *Samano* centered on a drilling operations clause that had been combined with the habendum clause into a single lease provision.[18] The combined provision permitted the lessee to hold the lease at the end of the primary term by engaging in drilling operations and permitted the lessee to interrupt the drilling operations and still hold the lease in force, so long as the interruption did not exceed sixty days.[19] If the *Samano* continuous operations clause was held applicable to the secondary term of the lease, then any cessation of production for more than sixty days without any drilling operations would terminate the lease.

The lease had been held by production for more than thirty years beyond the end of its primary term until lessee Sun Oil Company permitted production from the Samano lease to lapse, and waited seventy-three days before beginning reworking operations. Lessor Samano subsequently sued for a judgment declaring the lease terminated on the theory that the continuous operations clause applied to the secondary term of the lease, and that therefore an interruption of more than sixty days in both production and drilling operations had caused the lease to terminate.[20] Lessee Sun Oil Company defended with the argument that the continuous operations clause had no application to the lease's secondary term but claimed that the temporary cessation doctrine unmodified by the continuous drilling clause applied.[21] The seventy-three day interruption in production was well within the periods of time previously deemed reasonable by courts.[22] The supreme court agreed with the lessor, and affirmed the trial court's summary judgment that the contractual expression was dominant over the judicial doctrine and that the lease had terminated.[23]

The appellate and supreme court opinions are best understood by delineating the four possible interpretations of the *Samano* clause: (1) the continuous operation clause applied only to the primary term, (2) the continuous operation clause applied only to the secondary term, (3) the continuous operation clause applied to both the primary and secondary terms, or (4) recognize that leases generally are written by lessors and resolve the habendum clause's ambiguity against the lessors. In *Samano* the supreme

17. 621 S.W.2d 580 (Tex. 1981).

18. The combined lease provision reads:

> [T]his lease shall remain in force for a term of ten years from this date, called primary term, and as long thereafter as oil, gas or other mineral is produced from said land, or as long thereafter as Lessee shall conduct drilling or re-working operations thereon with no cessation of more than sixty consecutive days until production results, and if production results, so long as any such mineral is produced.

19. *Id.* at 580.

20. *See* note 18 *supra* and accompanying text.

21. The continuous operations clause, under Sun Oil's view, would hold the lease for a lessee who at the conclusion of the primary term was in the midst of drilling operations but had not begun production.

22. *See* Clifton v. Koontz, 160 Tex. 82, 325 S.W.2d 684 (1959) (if production never ceased then 60 day contractual limit will not be used to determine whether production in paying quantities ceased); Midwest Oil Corp. v. Winsauer, 159 Tex. 560, 566, 323 S.W.2d 944, 946 (1959) (permitting a cessation of 174 days).

23. 621 S.W.2d at 585.

court stated that a literal reading of the wording of the lease required adoption of the second interpretation.[24]

The dictum of the supreme court is worth noting, for this language may furnish the basis for a later development in judicial doctrine. The supreme court stated that the whole of the *Samano* continuous operations clause must be applied to the "whole" of the habendum clause, that is, to primary and secondary term alike.[25] Since arguably no convincing basis in grammar exists for the supreme court's interpretation in *Samano*, in the future Texas courts may fashion a presumption that a continuous operations clause will be applicable to both the primary and secondary term of an oil and gas lease to the exclusion of the temporary cessation doctrine developed in *Clifton v. Koontz*.[26]

B. The Royalty Clause

The royalty clause of a mineral lease specifies the ongoing remuneration to which the lessor is entitled for production from the mineral estate.[27] In most contemporary oil and gas leases, the lessor's royalty is expressed in terms of a fraction of the minerals produced, a portion of production which the lessor may elect either to take in kind or to allow the lessee to market for him together with the lessee's share of produced hydrocarbons.[28] Under such "proceeds" royalty clauses lessors who elect to allow the lessee to market their share of production implicitly rely on their lessee's self-interest in securing the highest possible price for his own por-

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24. *Id.* at 581-83. The court in its textual explication of the Samano clause stressed the recurrence of the word, "thereafter," in settling on the interpretation that the continuous operations clause became effective only after production had been obtained. *Id.* at 582. In so stressing, the court appeared to ignore the fact that the conjunction leading into the continuous operations clause was the word, "or," rather than the word, "and." *Id.* at 585 (Denton, J., dissenting). This commentator, however, believes that the court actually chose the third interpretation that the continuous operations clause applied to both the primary term and the secondary term of the *Samano* lease. The court in a sceptical manner recounted that Sun Oil Company urged the court to believe that the parties to the *Samano* lease,

> while intending to avoid the rule of reasonable temporary cessation as to operations in progress at the end of the primary term, still intended that the rule of temporary cessation would apply with respect to operations when production stops during the secondary term. Sun says that the parties intended a specific limit of sixty days for one-half of the habendum clause, but intended an uncertain period of time . . . for the other half of the habendum clause.

Id. at 583. The court continued by stating that "the whole drilling or reworking clause [of the *Samano* lease], including its sixty-day limit for the operations, must be applied to the whole habendum clause." *Id.* The court's concern for consistency in the parties' intention, or perhaps a deeper concern for the position of less sophisticated lessors seems to be the basis of the supreme court's true selection of the third interpretation. This writer believes that no satisfactory selection among the first three interpretations is possible on the basis of a literal interpretation of the wording of the Samano clause only.

25. *Id.* at 583.

26. 160 Tex. 82, 325 S.W.2d 684 (1959). *See* text accompanying note 7 *supra*.

27. For a general introduction to the law of royalty clauses, see 3 E. KUNTZ, *supra* note 3, § 38 (1967); 6 W. SUMMERS, *supra* note 3, § 1131 (1967); 3 H. WILLIAMS & C. MEYERS, *supra* note 3 §§ 641-662.

28. *See* 3 H. WILLIAMS & C. MEYERS, *supra* note 3, §§ 642.1, 642.5.

tion of the mineral lease's production to secure the highest price for their share of the produced mineral.[29] A different type of royalty clause, frequently used by lessors and lessees during the nineteen-thirties and known as the "fair market value" royalty clause,[30] expresses the lessor's royalty in terms of the fair market value of a stated percentage of production.[31] Under these clauses lessees sought to prevent claims from lessors for royalties based in part on the value added by lessees to the liquids through the expense of processing.[32] Liquids were removed from natural gas at natural gas plants, which were located on or near the producing wells themselves. The early fair market value clauses were phrased in terms of the value of the gas as it left the well, that is, before the liquids had been extracted from the natural gas at the nearby natural gas plant.

The significance of the fair market value royalty clause has changed since the nineteen-thirties. Rather than indicating that the lessor's royalty is to be calculated prior to any added processing value, fair market value royalty clauses presently signify that the lessor's royalty is to be calculated on the highest possible price that the lessee could obtain on the date of production if the lessee bargained from the basis of the lessor's economic interest.[33] In addition to this distinction between these clauses, a further distinguishing interpretation is given these provisions: that of "proceeds" type royalty clauses, in which the lessor's royalty is determined as a fraction of whatever the lessee in fact received for the marketed minerals, and that of the contemporary view of fair market value clauses, in which the lessor's royalty is based on the price the marketed mineral could have brought, regardless of the price the lessee actually received for the production from the lease.[34]

The contemporary view of fair market value royalty clauses owes much to the legal principles established by the case of *Texas Oil & Gas Corp. v.*

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29. *See* Amoco Prod. Co. v. First Baptist Church, 579 S.W.2d 280, 286 (Tex. Civ. App.—El Paso 1979), *writ ref'd n.r.e. per curiam*, 611 S.W.2d 610 (Tex. 1980); 5 H. WILLIAMS & C. MEYERS, *supra* note 3, § 856.3. *See also* Diem & Laity, *Mineral Resources, Annual Survey of Texas Law*, 34 SW. L.J. 185, 193, 195 (1980).

30. An example of such leases is the lease in Exxon v. Middleton, 613 S.W.2d 240 (Tex. 1981) in which the leases were executed between 1933 and 1938. Fair market value royalty clauses also are to be found in the standard lease form for Relinquishment Act lands provided by the Texas General Land Office. *See* First Nat'l Bank v. Exxon Corp., 622 S.W.2d 80 (Tex. 1981).

31. Fair market value royalty clauses originally were used to distinguish a royalty based on the value of "wet" natural gas, or gas from which the various liquids produced with the natural gas had not yet been extracted, from a royalty based on the value of dry natural gas and the processed liquids. *See* Exxon Corp. v. Middleton, 24 Tex. Sup. Ct. J. 6, 9 n.2 (Oct. 4, 1980) (opinion withdrawn). This footnote was deleted from the court's second and substituted Middleton opinion. Exxon Corp. v. Middleton, 613 S.W.2d 240 (Tex. 1981).

32. 24 Tex. Sup. Ct. J. 6, 9 n.2 (Oct. 4, 1980) (opinion withdrawn); 613 S.W.2d 240 (Tex. 1981).

33. The essence of the difference between proceeds royalty clauses and fair market value royalty clauses seems to be the timing of the valuation: whether one looks to the date of production or to the date on which the lessor has committed the leasehold production to a pipeline company. 613 S.W.2d at 244-45.

34. *See, e.g.*, R. HEMINGWAY, THE LAW OF OIL & GAS § 7.4 (1971).

Vela.[35] During the first phase of the development of Texas' natural gas reservoirs, lessees entered into extraordinarily long-term natural gas supply contacts with the various pipeline companies.[36] These long-term contracts, some running as long as forty years, were at the time the only means of marketing the production of natural gas wells.[37] Because long-term gas purchase contracts rarely included a price escalation clause, the production of many leases was being sold in later years for far less than the prevailing spot market price for natural gas, the market having dramatically increased as more uses were discovered for the substance and as consumer acceptance of natural gas increased.[38] Inflation and international control of supply and price also contributed to the increasing disparity between early contract prices for natural gas and more contemporary spot prices for natural gas. The lessors' view that fair market value royalties should be computed according to the open market price, rather than according to the price applicable under their lessees' long-term contracts, was upheld by the Texas Supreme Court in the *Vela* case in 1968.[39] Lessors' royalties under "proceeds" type royalty clauses, however, would continue to be based upon the long-term contract price.[40]

In ruling that a lessor's royalty under a "fair market value" type royalty clause was to be computed according to open market prices, the supreme court in *Vela* recognized that natural gas varies in its heating content and its distance from the ultimate consumer.[41] The court also recognized that the price used for the computation of lessors' fair market value royalties should therefore reflect the various economic factors that cause traders on the open market to adjust prices for specific lots of a commodity.[42] The supreme court noted that its ruling might cause hardship for many lessees, who would be caught between the long-term contract price they received from their purchasers and the lessors' royalty based on fair market value, a royalty that might be based on a figure ten or fifteen times the contract price.[43] The court did not believe, however, that the lessees' predicament under their purchase contracts should influence its decision about their obligations under gas leases.[44] The opinion does not state whether the court assumed that lessees were in a position to renegotiate their long-term

35. 429 S.W.2d 866 (Tex. 1968).

36. *See* Texas Oil & Gas Corp. v. Vela, 405 S.W.2d 68, 71 (Tex. Civ. App.—San Antonio 1966), *reformed and aff'd in part, rev'd in part, and dism'd in part*, 429 S.W.2d 866 (Tex. 1968).

37. *Id.* Pipeline companies believed that a long term commitment of natural gas was necessary to balance the risk of investing the quantities of capital necessary to build gas gathering and transmitting pipelines in previously undeveloped mineral areas. Foster v. Atlantic Co., 329 F.2d 485, 488 (5th Cir. 1964).

38. 329 F.2d at 489.

39. Texas Oil & Gas Corp. v. Vela, 429 S.W.2d 866, 876 (Tex. 1968).

40. *See* Exxon Corp. v. Middleton, 613 S.W.2d 240, 245 (Tex. 1981).

41. 429 S.W.2d at 872.

42. *Id.*

43. *Id.* at 871.

44. *Id.*

purchase contracts.[45] The essence of the *Vela* opinion was that lessors under fair market value royalty clauses were entitled to royalties based on prices that would be agreed upon in an ideal commodities market, with no regard to price constraints placed on lessees. Several cases decided after *Vela* seemed to confirm this generalization.[46]

Certain later cases, however, demonstrated that federal regulatory price constraints placed on lessees could restrict the amount of royalties to which lessors were entitled under fair market value royalty clauses.[47] The development of these cases concerning federally regulated interstate sales of natural gas was halted during the survey period with the Texas Supreme Court's opinion in the case of *First National Bank v. Exxon*.[48] The *First National* court held that a lessor's fair market value royalty from gas ultimately marketed through interstate pipelines would be calculated with reference to federally dictated prices, rather than with reference to open market prices.[49] The reasons for the reversal in the supreme court's thinking from *Vela* are not entirely clear. Possibly the court was persuaded by the perceived inequity to lessees of having the price of their marketed production limited by a federal price ceiling while having their royalty expense set by a free market.[50] According to one judge's observation, however, lessees may be able to pass along higher royalty charges to their customers under federal price regulation,[51] undercutting the perceived inequity to lessees under federal price control. Furthermore, during the years between the *Vela* decision and the survey period, two jurisdictions other than Texas have considered the matter of fair market value royalty clauses, and have decided that lessors' royalty was to be calculated without regard to federal price limitations.[52] Perhaps changes in the court's membership between the *Vela* decision and the present time is the sole reason

45. If this were an assumption of the court, one would have expected lessees already to have negotiated higher prices under their long term purchase contracts, since higher prices would have benefitted lessees and lessors alike.

46. *See, e.g.*, Butler v. Exxon Corp., 559 S.W.2d 410 (Tex. Civ. App.—El Paso 1977, writ ref'd n.r.e.) (market value means prevailing market value at time of sale and sale occurs when delivered), *on subsequent appeal*, Exxon Corp. v. Butler, 585 S.W.2d 881 (Tex. Civ. App.—San Antonio 1979, no writ) (decision of El Paso court consistent with *Vela*); Kingery v. Continental Oil Co., 434 F. Supp. 349 (W.D. Tex. 1977), *rev'd*, 626 F.2d 1261, 1265 (5th Cir. 1980) (market value of interstate gas to be determined by reference to interstate market alone).

47. *See* Brent v. Natural Gas Pipeline Co., 457 F. Supp. 155 (N.D. Tex. 1978), *aff'd sub nom*. Kingery v. Continental Oil Co., 626 F.2d 1261 (5th Cir. 1980); Henus & Co. v. Hawkins, 452 F. Supp. 861 (S.D. Tex. 1978).

48. 622 S.W.2d 80 (Tex. 1981).

49. *Id.* at 82.

50. Why this perceived inequity to lessees would have been persuasive during the survey period is unclear, when perceived inequity to lessees was expressly rejected by the court in the Vela decision and during the years immediately thereafter. *See* notes 43-46 *supra* and accompanying text.

51. First Nat'l Bank v. Exxon Corp., 597 S.W.2d 783, 791 (Tex. Civ. App.—El Paso 1980) (Osborn, J., dissenting), *aff'd*, 622 S.W.2d 80 (Tex. 1981).

52. *See* Lightcap v. Mobil Oil Corp., 221 Kan. 448, 562 P.2d 1, 2, *cert. denied*, 434 U.S. 876 (1977); Montana Power Co. v. Kravik, 586 P.2d 298, 301-02 (Mont. 1978). *See also* Note, *Federal Rate Regulation of Independent Oil and Gas Producers and the Royalty Interest—A Question of Values*, 26 KAN. L. REV. 309 (1978).

for the shift in the court's reasoning.[53]

Although the reason for the shift in the court's thinking is unclear, the methods by which the court accomplished its new purpose are certain. Rather than expressly overruling or revising its *Vela* decision, the Texas Supreme Court preferred to use the juristic style of interpreting its prior decision, and demonstrating how its new conclusion naturally flowed from selected aspects of that prior decision. First, the court looked to the criteria it used to construct the ideal market for natural gas,[54] and differentiated the quality of natural gas sold to interstate pipelines from natural gas sold intrastate.[55] The supreme court in its *Middleton* opinion had written in an aside that the "legal" characteristics of a given quantity of natural gas affected its "quality."[56] In the *First National* case, the supreme court enlarged upon this observation, ruling that interstate gas, being federally controlled, was legally different from intrastate gas.[57] Having concluded that the quality of interstate gas is different from the quality of intrastate gas, the supreme court concluded that the fair market value royalties owed to lessors whose gas was marketed interstate should be different from the fair market value royalties owed to lessors whose gas was marketed within the state.[58]

In addition to this first method of separating price regulated gas from freely priced gas by means of the notion of quality, the supreme court used another method. The word "market," for purposes of determining fair "market" value royalties under the *Vela* doctrine refers to an economic model, that is, to the pricing behavior of a group of traders who make rational decisions on the basis of complete knowledge regarding the quality of the commodity for sale.[59] Independent of the *Vela* doctrine, the word "market" can refer, not to the outcomes of pricing behavior, but rather to a group of consumers themselves who all possess some distinguishing characteristic. For example, one might speak of the group of Los Angeles automobile buyers as the "Los Angeles car market," or one might speak of the group of blue-eyed buyers of a soap as the "blue-eyed soap market." In justifying fair market value royalties to lessors with interstate gas that were lower than fair market value royalties to lessors with intrastate gas, the supreme court substituted the second meaning of the word, "market,"

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53. *See* text following note 61 *infra* (suggesting consideration of federal interests as a second reason).

54. *See* notes 41-46 *supra* and accompanying text.

55. 622 S.W.2d at 82; *see* Texas Oil & Gas Corp. v. Vela, 429 S.W.2d 866, 872-73 (Tex. 1968).

56. Exxon Corp. v. Middleton, 613 S.W.2d 240, 246-47 (Tex. 1981).

57. First Nat'l Bank v. Exxon Corp., 622 S.W.2d 80, 81-82 (Tex. 1981).

58. *Id.* at 82. A corollary to this inference shows the unusual nature of this logic. If asked whether the quality of interstate gas was higher or lower than the quality of intrastate gas, the supreme court would presumably say that neither was true, but that the quality of interstate gas was merely "different" from the quality of intrastate gas. The price of interstate gas, then, should not be higher or lower than intrastate gas, but merely be "different," and interstate fair market value royalties should be neither higher nor lower than intrastate fair market value royalties, but merely be "different."

59. *Id.* at 81. *See* notes 41-46 *supra* and accompanying text.

for the first meaning.[60] The supreme court concluded that royalties on gas sold in the interstate market, which was a different market from the intrastate market, should be computed with regard to the interstate, or regulated, price rather than with regard to the price mandated by the ideal commodities market.[61]

More satisfying reasoning and methodology could have been used by the supreme court in *First National*. Taken as a whole, the courts of Texas are courts of general jurisdiction, and can treat both state and federal concerns. The supreme court could therefore reason that if the federal interests represented by the federal pricing regime incumbent upon lessees and pipeline companies are to be recognized fully, then lessors must also be subject to the federal pricing mechanism. The court could then conclude that the federally mandated price ceiling, rather than the fair market value, should be used in calculating lessors' royalty clauses. By focusing on possible federal interests underlying federal price regulation of natural gas, the supreme court would have provided a rationale for distinguishing prices set under federal regulation from those set by long term gas purchase contracts. This line of reasoning would require an analysis of the federal interests underlying federal price controls, to determine whether such interests do indeed imply that lessors in Texas ought to be subject to the federal regime of price controls.

In addition to limiting the computation basis of fair market value royalties, the Texas Supreme Court limited the perceived inequity to lessees of fair market value royalties in a second way during the survey period. In its second *Middleton* opinion,[62] substituted for its first *Middleton* opinion,[63] the supreme court held that the royalties owed to lessors under fair market value royalty clauses were limited to the amounts specified in any division orders executed by the lessor until the division orders were repudiated by the lessor.[64] For the period leading up to the date of repudiation, the lessor is entitled only to the royalties specified by the division orders.[65] The supreme court also held that the bringing of suit to recover royalties under a fair market value royalty clause constituted a repudiation of any division orders then in effect.[66] This change in the court's holding regarding the effect of division orders on a fair market value royalty clause is significant for litigation in this area. If division orders have been executed by a lessor, then recovery of the difference between the sum of all past royalty payments conforming to the division orders and the sum of the royalty payments otherwise owed to a lessor under a fair market value royalty clause is cut off. In all other respects, the second *Middleton* opinion reaffirmed

60. 622 S.W.2d at 81.
61. *Id.* at 82.
62. Exxon Corp. v. Middleton, 613 S.W.2d 240 (Tex. 1981).
63. Exxon Corp. v. Middleton, 24 Tex. Sup. Ct. J. 6 (Oct. 4, 1980).
64. 613 S.W.2d at 250.
65. *Id.*
66. *Id.* at 251.

the court's holdings in its first *Middleton* opinion.[67]

C. Implied Covenants

Implied Covenants in General, with Reference to Field-Wide Drainage. Last year's *Survey* article on the law of mineral resources discussed the case of *Alexander v. Amoco Production Co*.[68] which had just been decided on the court of appeals level.[69] The Texas Supreme Court has now affirmed the lower court's holding that lessee Amoco Production Company owed a duty to the lessor Alexanders to protect the Alexander leases from field-wide drainage caused by Amoco's activities in other parts of the producing field.[70]

The supreme court did, however, reverse the court of civil appeals on the issue of exemplary damages.[71] The court of civil appeals had upheld the trial court's award of exemplary damages against Amoco without directly addressing the question of whether the implied covenant Amoco breached had been a contract or a tort obligation.[72] In reversing the court of civil appeals, the supreme court held that implied covenants of an oil and gas lease were contractual in nature, and therefore a breach of an implied covenant could not support an award of exemplary damages.[73] The court stated that before exemplary damages could be rightfully awarded, the commission of an independent tort must be proved.[74] The declaration by the *Alexander* court that implied covenants are essentially contractual in nature was made with reference solely to the issue of damages and does not indicate that implied covenants are essentially contractual for all purposes. The law of implied covenants, like the law of quasi-contract (unjust enrichment) and the law of warranties, seems to lie in the gray area between contract law and tort law.

In its *Alexander* opinion the Texas Supreme Court reaffirmed the conclusion that the reasonably prudent operator standard used in several contexts as the standard of behavior incumbent upon lessees in their dealings with and on behalf of lessors is to be interpreted with reference to the behavior of a reasonably prudent operator who had only one lessor.[75] The problems raised by conflicts of interest seem to be central to the law of oil

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67. *Id*. at 252.

68. 594 S.W.2d 467 (Tex. Civ. App.—Houston [1st Dist.] 1979), *modified and aff'd*, 622 S.W.2d 563 (Tex. 1981).

69. Diem & Laity, *Mineral Resources, Annual Survey of Texas Law*, 35 Sw. L.J. 177, 187-89 (1981) (discussing Amoco Prod. Co. v. Alexander, 594 S.W.2d 467 (Tex. Civ. App.—Houston [1st Dist.] 1979), *modified and aff'd*, 622 S.W.2d 563 (Tex. 1981)).

70. 622 S.W.2d at 567-69.

71. *Id*. at 585.

72. 594 S.W.2d at 480.

73. 622 S.W.2d at 571.

74. *Id*. (citing City Prods. Corp. v. Berman, 610 S.W.2d 446, 450 (Tex. 1980)).

75. 622 S.W.2d at 567-68. The conclusion that the standard refers to a lessee whose dealings are unaffected by considerations of conflicting responsibilities to multiple lessors was recently expressed in an opinion dealing with a lessee's obligations under a "proceeds" type of royalty clause. Amoco Prod. Co. v. First Baptist Church, 579 S.W.2d 280 (Tex. Civ. App.—El Paso 1979, writ ref'd n.r.e.).

and gas, treating as it does the disputes among parties who have differing interests in a common reservoir of hydrocarbons.

Perhaps the most significant pronouncement of the Texas Supreme Court in its *Alexander* opinion will prove to be the court's conclusion that the duty to protect one's lessor from field-wide drainage, rather than being a newly created duty, was merely an element of the general duty of a lessee to protect the leasehold estate.[76] The remarkable development implicit in the court's conclusion is that the array in oil and gas jurisprudence of several discrete duties owed by a lessee to its lessor, slowly developed under the theory of implied covenants, is now being replaced by a continuum of duty.[77] If this transformation of an array of discrete duties into a continuum of obligation becomes final, then the various individual implied covenants will simply become instances of specific applications of the general duty.

The Implied Covenant of Reasonable Development. Among the lessee obligations that Texas courts infer from mineral leases is the implied covenant of reasonable development.[78] This covenant obligates a lessee to continue the development of mineral property once the existence of a mineral in paying quantities has been established.[79] The covenant ensures that the landowner's property will be exploited on a timely basis. Without the covenant, the operator of the property, due to his sole control over operations on the mineral property, could develop the property at such a slow rate that the discounted present value of the lessor's retained interest in the minerals would be negligible. The covenant thus ensures that a lessee will act in the best interests of his lessor in developing the mineral property, as if the lessee had no other lessors whose economic interests might warrant the operator to reduce the priority of developing the first lessor's property.[80]

In order for the reasonable development covenant to be brought into play, the existence of paying quantities of a mineral must first be established.[81] In the case of oil and gas reservoirs, such paying quantities can be established only through actual production from the hydrocarbons.[82]

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76. 622 S.W.2d at 568.

77. Compare the analogous development in civil procedure as the discrete English forms of action first multiplied in number to accomodate an array of perceived wrongs, T. PLUCKNETT, A CONCISE HISTORY OF THE COMMON LAW 354-378 (5th ed. 1956), and then unified into a single form of action for universal application, 4 C. WRIGHT & A. MILLER, FEDERAL PRACTICE AND PROCEDURE: CIVIL §§ 1041, 1042 (1969).

78. *See* R. HEMINGWAY, *supra* note 34, at 368-78.

79. For a general introduction to the implied convenant of reasonable development, see 5 E. KUNTZ, *supra* note 3, § 47 (1972); 2 W. SUMMERS, *supra* note 3, §§ 395-398; 5 H. WILLIAMS & C. MEYERS *supra* note 3, §§ 831-835.

80. Compare this equal priority among lessors with regard to developing hydrocarbon deposits with the equal priority among lessors with regard to marketing hydrocarbon production discussed in Amoco Prod. Co. v. First Baptist Church, 579 S.W.2d 280, 284-87 (Tex. Civ. App.—El Paso 1979, writ ref'd n.r.e.).

81. Exxon Co., U.S.A. v. Dalco Oil Co., 609 S.W.2d 281, 285 (Tex. Civ. App.—Corpus Christi 1980, no writ).

82. *Id.* at 286.

Only production itself will yield the information necessary to determine whether an operator will be able to recover his production costs if the hydrocarbons are indeed brought to the surface. In the case of uranium and other hard minerals, however, the existence of paying quantities of the mineral presumably can be established without actual production.[83]

In the case of *Exxon Co., USA v. Dalco Oil Co*.[84] Exxon, as lessee, brought suit against its sublessee Dalco for breach of the implied covenant of reasonable development. Dalco moved for summary judgment on the issue, arguing that it was not subject to the reasonable development covenant since actual production of uranium had not begun. The court of civil appeals disagreed, observing that since the existence or nonexistence of paying quantities of uranium could be established from logs and other exploratory data, the prerequisite that the mineral have been produced did not apply to uranium.[85] The court reversed the trial court, which had rendered judgment summarily for Dalco, and remanded the cause so that a jury might determine whether or not paying quantities of uranium did indeed exist.[86] If the technology for analyzing deposits of hydrocarbons in place advances sufficiently so that the existence of hydrocarbons in paying quantities could be determined without actual production, the *Dalco* court's reasoning suggests that the obligation of reasonable development will arise prior to actual production in the case of hydrocarbons and uranium alike.

II. LEGISLATION

During the survey period the Texas Legislature enacted a number of amendments to the Natural Resources Code, Water Code, and the Texas Revised Civil Statutes relating to the exploration for and production of oil, gas, and other minerals. The addition of several new sections to the Natural Resources Code are the enactments of the most general interest.[87] Section 85.053 authorizes the Texas Railroad Commission, in instances where the commission has permitted commingled production for the prevention of waste, to allocate the allowable production of commingled hydrocarbons from multiple stratigraphic or lenticular accumulations among the various producers as if the commingled hydrocarbons were a single pool.[88] Furthermore, this new section places a floor under the amount of allowable production allocated to a well producing from separate accumulations.[89] The amount allocated to such a well cannot be less than the amount of allowable production that would be allocated to the well if the commission were treating the separate accumulations as if they were sub-

83. *Id.*
84. 609 S.W.2d 281 (Tex. Civ. App—Corpus Christi 1980, no writ).
85. *Id.* at 285.
86. *Id.* at 286.
87. TEX. NAT. RES. CODE ANN. §§ 85.053, 85.055(d), 86.081 (Vernon Supp. 1982).
88. *Id.* § 85.053(b).
89. *Id.*

ject to the rules concerning the zoning of common reservoirs.[90] Section 85.055(d) requires the commission to take into account at least two of the factors for determining gas allowables when the commission is allocating the allowable production from commingled hydrocarbons.[91] Other new provisions place restrictions on the commission's discretion in allocating allowable production.[92]

Other legislation enacted by the 1981 legislature will be of interest to those exploring for or producing minerals on Texas state lands. Section 52.024 of the Natural Resources Code expands the obligatory lease provision regarding shut-in gas royalties for public school or gulf land to include shut-in oil royalties as well.[93] The circumstances under which the payment of shut-in royalties will be permitted to hold a lease have been expanded so that lack of production because of either the lack of suitable production facilities or the lack of a suitable market will be excused by the payment of shut-in royalties.[94] An amendment to the Texas Revised Civil Statutes gives to the Board for Lease of Texas Prison Lands exclusive control of deposits of coal, lignite, and other minerals other than oil and gas located on state prison lands.[95] Similarly, new legislation was enacted that empowers the State Highway and Public Transportation Commission to lease land owned by the state that is within the jurisdiction, or under the control of, the commission, and land owned by the state that has been acquired for the construction or maintenance of a roadway for the development of minerals other than oil and gas.[96] The commission must exercise this authority in accordance with the provisions of Chapter 34 of the Natural Resources Code,[97] which is applicable generally to boards for lease of the public domain.[98] Another amendment to the Natural Resources Code requires that all persons who do not hold a valid oil and gas lease or mineral lease but who wish to conduct geophysical or geochemical exploration on most on-shore lands dedicated to the permanent free school fund must (1) obtain a permit from the Commissioner of the General Land Office and (2) follow the regulations prescribed by the commissioner.[99] Penalties for failure to comply with this legislation include fines of up to one thousand dollars a day.[100] The legislation requires the commissioner to adopt rules requiring the restoration of land to its pre-exploration state.[101]

Certain other pieces of legislation enacted during the survey period do

90. *Id.*
91. *Id.* § 85.055(d).
92. *Id.* § 86.081(b).
93. *Id.* § 52.024.
94. *Id.*
95. TEX. REV. CIV. STAT. ANN. art. 6203aaa (Vernon Supp. 1982).
96. *Id.* arts. 6673a—1, 6673a—2; TEX. NAT. RES. CODE ANN. § 34.002 (Vernon Supp. 1982).
97. TEX. NAT. RES. CODE ANN. §§ 34.001-.185 (Vernon 1978).
98. *Id.* § 34.002(b) (Vernon Supp. 1982).
99. *Id.* §§ 52.321-.325.
100. *Id.* § 52.325.
101. *Id.* § 52.324(a)(3).

not relate directly to the law of mineral resources, but may be of interest to the reader. One enactment authorizes the Texas Water Commission to regulate the use of injection wells to maintain the quality of fresh water.[102] In addition, the Texas Railroad Commission is now authorized to regulate the use of disposal wells[103] and underground hydrocarbon storage facilities.[104] Recent amendments to the Natural Resources Code (1) provide for the regulation of carbon dioxide pipelines,[105] and (2) relate to persons dealing in used oil and gas equipment and used pipeline equipment.[106] Lastly, the management of hazardous wastes was the subject matter of other legislation.[107]

III. ADMINISTRATIVE DEVELOPMENTS

The Texas Railroad Commission amended several of its rules that have general statewide application to oil and gas operations. Among these changes were three of greater significance than the others. Rule 13[108] was amended to require storm chokes or similar safety devices on all flowing wells located in Texas bays, estuaries, lakes, rivers, and streams. Previously, Rule 13 had required storm chokes for flowing oil and geothermal wells only. Rule 50, requiring in certain instances that gas oil ratio tests be performed after potential tests taken for proration purposes had been performed, has been repealed.[109] Finally, Rule 53[110] now requires that oil well status reports include reports of gas oil ratio tests on oil wells performed between regularly scheduled gas oil ratio test surveys. The amended Rule 53 also requires that oil well status reports must include all wells on the lease, including injection wells, water disposal wells, and shut-in wells with no allowable, excluding only statutory gas wells.[111]

102. TEX. WATER CODE ANN. §§ 27.001-.003 (Vernon Supp. 1982).
103. *Id.* §§ 27.031-27.034.
104. TEX. NAT. RES. CODE ANN. §§ 91.201-.210 (Vernon Supp. 1982).
105. *Id.* §§ 111.002, 111.013.
106. *Id.* §§ 112.001, 112.011-.012, 112.032-.033.
107. *See* TEX. REV. CIV. STAT. ANN. arts. 4477—7, 4590f, 4590f—1 (Vernon Supp. 1982); TEX. NAT. RES. CODE ANN. § 131.004(3) (Vernon Supp. 1982); TEX. WATER CODE ANN. §§ 26.131, 26.301, 26.307 (Vernon Supp. 1982).
108. Tex. R.R. Comm'n, Rule 051.02.02.013, 6 Tex. Reg. 304 (1981).
109. Tex. R.R. Comm'n, Rule 051.02.02.050, *repealed*, 5 Tex. Reg. 4419 (1980).
110. Tex. R.R. Comm'n, Rule 051.02.02.053, 5 Tex. Reg. 4419 (1980).
111. *Id.*